Board of High Pressure Piping Systems
Department of Labor and Industry
443 Lafayette Road North
Saint Paul, MN 55155-4344

March 3, 2009

The Honorable Kathleen Sheehy
Office of Administrative Hearings
P.O. Box 64620
St. Paul, Minnesota 55164-6260

Re: In the Matter of the Proposed Rules of the Minnesota Board of High Pressure Piping Systems Relating to High Pressure Piping, Minn. Rules Chapter 5230; OAH Docket No. 3-1900-20064-1; Governor's Tracking No. AR454

Dear Judge Sheehy:

This letter sets forth the response of the Board of High Pressure Piping Systems ("Board") to the comments submitted both in writing and at the hearing. Because the only issue at the hearing was the definition of "repairs on an existing installation," most of this letter will address that issue. At the end of this letter, the Board will respond to written comments received on other portions of the proposed rule, and make one minor modification to the proposed rule.

I. The proposed definition of "repairs on an existing installation" is needed and reasonable.

A. Introduction

In order to understand why the proposed definition is needed and reasonable, it is first important to understand the purpose of the high pressure piping statutes. The reason for the regulation of high pressure piping work is to protect the public (including the workers) from potentially dangerous accidents involving high pressure piping. Because of the hot temperatures and high pressures of water and other media in these pipes, leaks or exploding pipes can cause injury or death. Similarly, the ammonia used in high pressure piping for ammonia refrigeration systems is potentially deadly.[1] The high pressure piping laws therefore regulate work on ammonia refrigeration pipes and other high pressure piping systems to prevent dangerous leaks of ammonia and high temperature steam and liquids, and potentially lethal flying pieces of pipes and fittings.

The Legislature has established by statute two methods of protecting the public from the

[1] *See* March 3, 2009, letter from Todd Green to the Honorable Kathleen Sheehy (hereinafter "Green's letter").

risks of high pressure piping: a licensing program, and a permitting program. The licensing program is intended to ensure that only qualified individuals perform this dangerous work. The permitting program requires that, before constructing or installing any high pressure piping, the licensee obtain a permit and pay an inspection fee.

The statute requiring a permit states: "No person shall construct or install high pressure piping systems without first filing an application for a permit with the department or municipality that has complied with subdivision 2."[2] Compliance with subdivision 2 relates to permissive municipal regulation where municipalities have entered into an agreement with the state. Only St. Paul and Minneapolis have entered into such agreements. Note that the statute does not limit the permitting requirement to new installations. A permit is required for **any** installation of high pressure piping systems, regardless of whether the installation involves new or replacement pipes.

In order to obtain a permit, a high pressure piping license is needed. This requirement is set forth in statute as follows: "Before obtaining a permit for high pressure piping work, a person must obtain or utilize a business with a high pressure piping business license."[3] Furthermore, the licensed business must at all times have a full time employee who holds a contracting high pressure pipefitter competency license.[4] The definition of contracting high pressure pipefitter recognizes that only qualified individuals should be constructing or making replacements to high pressure piping:

> "Contracting high pressure pipefitter" means an individual, such as a steamfitter, engaged in the planning, superintending, and practical installation of high pressure piping and appurtenances, and otherwise lawfully qualified to construct high pressure piping installations *and make replacements to existing plants*, who is also qualified to conduct the business of high pressure piping installations and who is familiar with the laws, rules, and minimum standards governing them.[5]

The exception for "repairs on an existing installation" must be viewed in this context. The licensing exception reads: "No license shall be required for repairs on existing installations."[6] Because no license at all is required, that means that no permit could be required either. In other words, because only a licensed individual can obtain a permit, if no license is required then no permit is required.[7] Therefore, whatever work falls within "repairs on existing installations" does not require a permit.

After a high pressure piping business obtains a permit, the Department of Labor and Industry ("Department") (or City of Minneapolis or St. Paul) performs one or more inspections of the work to ensure that the work complies with the applicable codes and

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[2] Minn. Stat. § 326B.92, subd. 1 (2008).
[3] Minn. Stat. § 326B.921, subd. 2 (2008).
[4] *Id.*
[5] Minn. Stat. § 326B.91, subd. 3 (2008) (emphasis added).
[6] Minn. Stat. § 326B.921, subd. 1 (2008).
[7] This is consistent with Xcel Energy's interpretation of the law, as set forth in their welding manual. *See* exhibit 99, page 4 of 7 of welding manual, paragraph 8.1.

licensing requirements. If no permit application is filed, then the Department generally is not aware of the high pressure piping work, and cannot inspect the work to ensure public safety.[8] It therefore follows that "repairs on existing installations" must be the kind of work that does not need to be inspected for the protection of public safety.

B. A definition of "repairs on an existing installation" is needed.

The disagreement about the definition of "repairs on an existing installation" at the hearing shows that a definition is needed. Mr. Steve Pederson testified that, even when he was the chair of the High Pressure Piping Advisory Council, the definition of "repair" was an issue: "it's been on the docket and in the discussion for many, many years."[9] The meaning of "repair" has been probably been discussed for 15 years.[10]

Testimony by representatives of Xcel Energy ("Xcel") demonstrates the need for a uniform definition. Xcel's welding manual includes the following definition of "repair":

> *REPAIR* – as identified in Minnesota Statute 326.48, Subdivision 1, includes all repair work needed to restore a HPP system to a safe and satisfactory operating condition without changing its designed pressure containing capabilities.[11]

Xcel's welding manual also includes "Examples of Typical Repairs for High Pressure Piping."[12] These examples of "repairs" include installation of high pressure piping: "Weld repair or replacement of existing pipe, pipe penetrations and their attachments;" and "The addition of pipe material required to accomplish a repair, but not for the purpose of changing system routing."

Xcel's definition of "repair" was rejected by former Commissioner of Labor and Industry Scott Brener. Commissioner Brener specifically informed NSP (now Xcel) in November 2006 that they could not rely on their definition of "repair."[13]

Xcel's definition of "repair" is in marked contrast to the Department's interpretation. During the entire time that Chief High Pressure Piping Inspector Todd Green has been employed as a Department inspector (from 1997 to the present), the Department has consistently interpreted "repairs on existing installations" as ***not*** including the replacement or installation of pipe. Mr. Green was told when he began work in 1997 that the Department inspectors had always interpreted "repairs" as meaning no cutting, threading, or welding of pipe.[14] Clearly, a definition is needed.

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[8] *See* Green's letter.
[9] Transcript of February 11, 2009, rulemaking hearing (hereafter Tr.) at 170.
[10] Tr. at 172.
[11] Exhibit 99, page 3 of 7 of welding manual, paragraph 5.9
[12] Exhibit 99, page 6 of 7 of welding manual, Table I.
[13] *See* Exhibit 99, page 1.
[14] *See* Green's letter.

C. The proposed definition is reasonable.

The proposed definition is reasonable because it allows the least highly skilled, least dangerous work to be performed by untrained people without a permit or inspection. Proposed rule 5230.0005, subpart 16, states:

> **Repairs on an existing installation.** "Repairs on an existing installation" means the in-kind replacement of:
> A. manufactured threaded nipples up to six inches in length; or
> B. flanged or threaded valves, strainers, traps, or fittings, or gaskets for these items.

This proposed definition would allow the replacement of certain manufactured items. It is reasonable to allow such replacements without a license or permit because this type of high pressure piping work requires the least training and skill. Thus, this type of work poses the least danger to the public.

1. The proposed definition allows various types of repair work by unlicensed individuals.

At the hearing, the employees of Xcel and Flint Hills Resources ("Flint Hills") testified that those two companies have almost no high pressure piping work that falls into this proposed definition of "repairs." IBEW attorney Gregg Corwin argued that the proposed definition of repairs essentially wipes the phrase "repairs on existing installations" out of the statute.[15] This is simply not true.

Although much of the high pressure piping work being performed at Xcel and Flint Hills by unlicensed persons may need to be licensed under the proposed rule, that does not make the phrase "repairs on existing installations" meaningless. Xcel employee Kevin Koecher testified that flanged threaded valves, as referenced in the proposed rule, were "all over the plant."[16] These valves are part of the Xcel high pressure piping systems. The training Mr. Koecher has received would serve him in performing the tasks allowed by the proposed definition.[17]

The proposed definition would allow certain work without licensure or permitting. Chief High Pressure Piping Inspector Todd Green has provided photographs with examples of valves, fittings, steam traps, strainers, flex joints, manufactured threaded pipe nipples, and gaskets that could be replaced as a repair under the Board's proposed definition.[18] The proposed definition therefore would not write the phrase out of the statute.

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[15] Tr. at 33.
[16] Tr. at 79.
[17] Tr. at 79-80.
[18] *See* Green's letter and Attachments A and B.

2. The interpretation of "repairs" by Xcel Energy and Flint Hills Resources is contrary to legislative intent.

As will be shown below, Xcel and Flint Hills have interpreted the "repairs" exception as covering almost all of the high pressure piping work performed by their many full-time in-house pipefitters. This interpretation therefore functions as a way to deprive government authorities of the opportunity to inspect most of Xcel's and Flint Hills' in-house high pressure piping work. Although the Board is not making any statement about the quality of the work performed, the Legislature cannot have intended that the bulk of the high pressure piping work be excluded from licensing and inspection. This would defeat the purpose of the high pressure piping laws: to protect the public. Therefore, contrary to the assertions of Xcel and Flint Hills, "repairs" should not be defined in a way that would allow the unlicensed, unpermitted replacement of pipe.

Xcel witnesses testified that, at their non-nuclear locations,[19] they have 27 full-time journeymen pipefitters, most of whom are not licensed.[20] Since 2002, Xcel (a licensed high pressure piping business) has only obtained 11 permits for high pressure piping work: 10 from the Department, and one from the City of Minneapolis. None of these permits were "blanket" permits, which are a type of permit that allows ongoing, day-to-day high pressure piping work.[21]

Xcel is clearly still relying on their broad definition of "repairs," which was specifically rejected by Commissioner Brener. Most of the high pressure piping work performed by Xcel's 27 full-time pipefitters must be work that Xcel considers to be "repairs." Xcel apparently believes that, if the design of the system is not changed, then the replacement of existing pipe falls within the definition of "repairs"; that explains why Xcel has obtained so few permits for high pressure piping work.

One unlicensed Xcel employee testified that the work he performs as "repairs" includes: cutting out part of the existing pipe and welding the valves back; or removing a defective part of the pipe and rewelding the existing valve back in place.[22] Another Xcel employee admitted that "almost everything that we deal with is welding."[23] Xcel employee Donald Baxa gave a detailed description of what Xcel pipefitters currently do as "repairs":

> Again, the definition that earlier has been defined within Xcel Energy is a light for light[24] repair, so if it's a one-inch valve that's welded in that is no longer functioning, we cut it out and we weld in a brand new valve. If we have a section

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[19] Because the nuclear plants are under the jurisdiction of the United States, they are regulated by the Nuclear Regulatory Commission, and the high pressure piping workers do not need state licenses. *See* Minn. Stat. § 326B.91, subd. 4 (2008) (excluding from the definition of high pressure piping "any high pressure piping under the direct jurisdiction of the United States").

[20] *See* Tr. 148-49.

[21] *See* Green's letter.

[22] Tr. 50-51.

[23] Tr. 160.

[24] The transcript says "light for light" when the witness must have said "like for like."

> of piping that is worn out, we will cut out that section of piping and go in with a light for light repair. So it's – it's routine to whether it's piping, whether it's valving. Those are by far our most prevalent types of repairs. Those are repairs currently being done by our own staff that has been trained and qualified to do it that would no longer be able to do it.[25]

Mark Geisenhoff testified that Flint Hills has eight full-time pipefitters. Flint Hills, like Xcel, holds a high pressure piping business license. Since 2002, Flint Hills Resources has only applied for two high pressure piping permits. One was for fabricating new piping. The other permit was a blanket permit for the year 2003, but Flint Hills never reported any projects completed under this permit.[26] Here again, the vast majority of the in-house work being performed by Flint Hills must be work for which no permit has been sought. Presumably, the rationale for not seeking permits is that the work is merely "repair" work.

The Legislature could not have intended such a large quantity of dangerous high pressure piping work to fall outside the scope of the licensing and permitting requirements. This is especially true in light of Minnesota Statutes, section 326B.90, which states in pertinent part: "The department shall supervise all high pressure piping used on all projects in this state." By performing unlicensed, unpermitted work, Xcel and Flint Hills have deprived the Department of the knowledge of high pressure piping work, and thereby hindered the Department's ability to inspect this work in a timely manner.

3. It is reasonable that the proposed definition of "repairs" excludes the replacement of pipe, and excludes welding.

If the definition of "repairs on an existing installation" were to include the replacement of welded high pressure piping, then any owner of high pressure piping could replace an entire existing piping system without any license or permit. Whether that replacement is piecemeal or is performed all at one time, this would defeat the goal of the high pressure piping laws: to protect the public. Allowing the replacement of welded piping as "repairs" is therefore contrary to Minnesota law on interpretation of statutes. Interpreting "repairs" as including the replacement of pipe would yield an absurd result, and would favor private interests over the public interest.[27]

It is reasonable that unlicensed individuals be prohibited from performing welding on high pressure piping. The Department has found many instances of terrible welding by unlicensed persons. Chief High Pressure Piping Inspector Green's letter sets out a detailed description of the horrible welds and the risks that they pose to the public.

The testimony by Xcel's witnesses confirms the critical nature of proper welding. One employee testified about his pride in his welding that "I'm not going to let my best buddy

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[25] Tr. 159.
[26] *See* Green's letter.
[27] *See* Minn. Stat. § 645.17(1), (5) (2008).

get killed by it."[28] Another Xcel employee admitted that the welding "repairs" he performs require a high degree of skill: "These repairs require a fairly high level of welding ability."[29] The repeated testimony about Xcel's extensive training program for welders confirms that welding on high pressure piping systems is a critical, highly skilled task that requires extensive training.[30]

Based on the Department's experience, it is crucial that welding on high pressure piping be performed by licensed individuals and require a permit, so that the regulatory authorities can inspect the welds.

4. The proposed definition of "repairs on an existing installation" is consistent with the Department's long-standing interpretation.

At least since 1997, the Department has interpreted the phrase "repairs on an existing installation" as NOT including cutting, threading, or welding of pipes used in high pressure piping systems. Chief High Pressure Piping Inspector Todd Green learned this when he began work for the Department as a field inspector in 1997. The Department's interpretation has not changed since that time.[31] This interpretation is reasonable because cutting, threading and welding require the highest level of pipefitter skills. The Legislature cannot have intended the most highly skilled pipefitting work to be excluded from the licensing requirement. That would not protect the public.

Other owners of high pressure piping have understood and implemented this long-time interpretation of the Department. Minnesota Power, a major energy supplier with five locations, has always used licensed individuals for their welding work on high pressure piping. Similarly, Boise Paper has always used licensed pipefitters to weld on their high pressure piping. This has not created a problem for these owners.

Both of these owners, as well as others such as American Crystal Sugar and the University of Minnesota, employ licensed pipefitters and obtain annual "blanket" permits to install piping on an ongoing basis, without delay.[32] Some owners use high pressure piping contractors to perform work. Contractors are available 24/7 to perform needed work immediately.[33] The Department's interpretation has been workable for both the owners who choose to employ licensed pipefitters and the owners who choose to use independent pipefitting contractors.

5. The Legislative history supports the Board's proposed definition of "repairs on an existing installation."

In 1984 the Minnesota Legislature enacted many changes to the high pressure piping

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[28] Tr. 116.
[29] Tr. 51.
[30] *See, e.g.,* Tr. 44-47, 62-65.
[31] *See* Green's letter.
[32] *Id.*
[33] *See* Tr. 171.

laws. One of these changes was the change to the sentence regarding repairs. Before 1984, that sentence read:

> No license shall be required for minor repairs on existing installations, provided the repairs shall be made in compliance with the prescribed minimum standards of the department of labor and industry.[34]

In 1984, the language was amended to the present language: "No license shall be required for repairs on existing installations."[35]

There is very little information available about the legislative history of this change. Committees in both the House and Senate initially amended their respective bills to delete the entire pre-1984 sentence in its entirety.[36] Then, the House and Senate each added the present language back into their respective bills.[37] We have not been able to locate any documents explaining why the entire sentence was initially deleted or why part but not all of the sentence was re-inserted.

To understand the intent of the 1984 Legislature, it is important to consider the 1984 amendments to the high pressure piping laws in their entirety. Before 1984, there was no mandatory inspection of high pressure piping work. Although there was an option for cities to require permits, there was no statewide permit requirement. In 1984, the Legislature for the first time enacted a statewide permit requirement. This new language stated:

> *No person, firm, or corporation shall construct or install high pressure piping systems without first filing an application for a permit* with the department of labor and industry or a municipality that has complied with subdivision 2. Projects under construction prior to August 1, 1984, are not required to obtain a permit.[38]

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[34] *See* Minn. Stat. § 326.48, subd. 1 (1982).

[35] *See* 1984 Minn. Laws, ch. 481, § 4.

[36] The House Committee on Commerce and Economic Development, on March 27, 1984, amended H.F. 1264, in accordance with Attachment A, which deleted the sentence including the "repairs" language from the statute. This committee then re-referred the amended bill to the House Committee on Governmental Operations. *See* minutes of the twenty-first meeting of the House Committee on Commerce and Economic Development, Mar. 27, 1984 and Attachment A, page 4, lines 6-10. The Senate Committee on Employment recommended to the Senate that S.F. 2098 be amended to delete the sentence including the "repairs" language from the statute. *See* minutes of March 30, 1984, Senate Employment Committee Meeting and amendment HA84-127 at page 4, lines 6-10. The Senate adopted this amendment and re-referred the bill to the Senate Committee on Finance. *See* Journal of the Senate, Apr. 5, 1984, at 5150-54.

[37] On April 12, 1984, the House Appropriations Committee amended H.F. 1264 to re-instate the language that is in the present law. This amendment passed, and the committee then recommended the amended bill to pass. *See* Appropriations Committee Meeting Minutes, 37th meeting, April 12, 1984 and Attachment No. 1, page 2, lines 2-5. The House adopted this committee report on April 13, 1984. *See* Journal of the House, Apr. 13, 1984, at 8185-87. On April 17, 1984, the Senate adopted a comparable report from the Senate Committee on Finance, which recommended amendment of S.F. 2098 to re-instate the language that is in the present law. *See* Journal of the Senate, Apr. 17, 1984, at 6091-92.

[38] 1984 Minn. Laws, Ch. 481, section 3 (codified as Minn. Stat. § 326.47, subd. 1) (emphasis added).

This new law required permits for high pressure piping installation work on both new and existing systems. The Legislature chose the words "construct or install high pressure piping systems." Installation was **not** limited to "new" installations. The Legislature clearly understood the difference between an existing installation and a new installation because the repair language included the phrase "existing installations." Therefore, the absence of the words "existing" and "new" in the phrase "construct or install high pressure piping systems" means that the Legislature intended to require permits for the installation of high pressure piping in both new and existing systems.

The Legislature must have intended that all "construction" and "installation" of high pressure piping systems would be regulated by the Department or a municipality. Similarly, the Legislature must have believed that this regulated work was different from "repairs on existing installations," because the Legislature removed the following italicized phrase from the pre-1984 statute:

> No license shall be required for minor repairs on existing installations, *provided the repairs shall be made in compliance with the prescribed minimum standards of the department of labor and industry.*

Accordingly, the 1984 Legislature was distinguishing "repairs on existing installations" (which would not be regulated by the Department or municipalities) from "construction and installation of high pressure piping systems" (which would be regulated by the Department or municipalities).

Based on this legislative history, the Legislature did not intend the phrase "repairs on existing installations" to include any installation of high pressure piping. Because the replacement of piping is a type of installation, the Legislature did not intend "repairs" to include replacement of piping.

6. Xcel Energy's alternative to state licensing and inspection is not recognized by the Legislature.

At the hearing, Xcel presented evidence of the extensive training their unlicensed workers receive before performing high pressure piping work.[39] Similarly, Xcel presented evidence that they have their own welding inspectors who provide oversight of welding.[40] The Board does not dispute that Xcel's welders are highly trained or that Xcel has its own inspectors. Xcel has, in essence, created an alternate program for licensing and inspection. Xcel employees testified that they don't even ask if someone coming in to do work on their high pressure piping is licensed.[41] They instead train those individuals themselves. Their attitude is that the license is worthless: "from Xcel Energy's perspective, a license adds no value."[42]

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[39] *See, e.g.*, Tr. 44-47, 62-65.
[40] Tr. 66-67, 124.
[41] *See* Tr. 71-72.
[42] Tr. 139.

Xcel has established its own training and inspection program instead of requiring individuals to be licensed and instead of applying for permits from the Department or municipalities. The Legislature has not recognized this alternate training and inspection program. Instead, the Legislature requires licensure and state or municipal inspection. The fact that Xcel recognizes the extensive training needed for this dangerous work proves why the Legislature established the licensure program: licensure is the Legislature's way of attempting to ensure that individuals have sufficient knowledge, training, and experience to perform dangerous work in a safe manner. Similarly, Xcel recognizes that inspection of high pressure piping work is needed for public safety: state and municipal inspection is the Legislature's method of ensuring that the high pressure piping has been installed properly.

Xcel witnesses repeatedly pointed out that a license is no guarantee of quality work.[43] That's true. A driver's license is no guarantee of good driving. A physician's license is no guarantee that the surgeon won't amputate the wrong leg. But the licensure requirement is the minimum standard set by the Legislature. Xcel and Flint Hills are trying to avoid this minimum standard.

If Xcel wants the Legislature to recognize its training and inspection program as an alternative to state licensing and inspection, Xcel must obtain that recognition from the Legislature. Neither the Board nor the Department has the authority to recognize a private training and inspection program as an alternative to licensing and government inspection.

Finally, the Board has no way of knowing whether the training program at Xcel results in a quality product. Since Xcel does not apply for permits for the vast majority of its high pressure piping work, the vast majority of Xcel's high pressure piping work has not been inspected by the Department or any municipality. When regulatory authorities are deprived of the opportunity to inspect, it is impossible to know whether the work is code compliant.

Xcel recognizes the importance of having a licensed plumber fix a toilet: "and when it does get into plumbing, I'll tell you we do call in licensed plumbers if it has to do with the toilet."[44] Licensing is no less important for high pressure piping work than for plumbing.

7. The cost of the proposed rule is *not* prohibitive.

At the rulemaking hearing, Xcel grossly over estimated the cost of the proposed definition of "repairs." Xcel based its calculations on the need to license all 42 of its high pressure piping workers performing "repairs." This included 15 employees at the two nuclear locations which are not subject to the licensing requirements.[45] Even if Xcel decides that, for its own business purposes, it wants to license all 27 of the non-nuclear

[43] *See, e.g.*, Tr. 61-62.
[44] Tr. 52.
[45] *See* note 19 *supra*.

plant employees, the cost of licensing these individuals depends on what is required for licensing. Don Baxa, the Xcel employee who testified about costs, did not know what is required to obtain a license.[46] Mr. Baxa therefore could not possibly have accurately calculated the cost to Xcel of licensing these individuals.

Even Mr. Baxa admitted that fewer than 27 would need to be licensed.[47] Xcel could clearly restructure their pipefitting work to require fewer that 27 licensed pipefitters. Not all of the work performed by Xcel's pipefitters is high pressure piping work. All of Xcel's in-house pipefitters perform work for Xcel other than high pressure piping work.[48] Some weeks all of a pipefitter's work might be high-pressure piping work, while other weeks the high pressure piping component of the work might only be 10%.[49] One of Xcel's currently licensed pipefitters, Trent Nikle, testified that, if the proposed rule were to go into effect, Xcel could assign more of the high pressure piping work to Mr. Nikle, and give other work that does not require a license to other Xcel employees.[50]

Xcel holds a high pressure piping business license, and employs a contracting high pressure pipefitter.[51] Xcel superintendent Monica Vic testified that this license is not relevant to the work performed by the in-house maintenance pipefitters because of the organization of Xcel. Specifically, Ms. Vic testified that the maintenance is done through the operations side of the company, which is separate from the construction side of the company. According to Ms. Vic, the construction side holds the high pressure piping business license and employs the contracting high pressure pipefitter. The maintenance welders do not take their work orders from the construction side, and the construction workers do not take their work orders from the maintenance side: "I can't image that our maintenance welders would be taking work instructions from the construction group."[52]

Xcel's business license is one license, not a license limited to the construction side. There is no legal reason why Xcel's maintenance workers could not be licensed and perform their work under the current business license. That is a business decision by Xcel, not something mandated by law.

It is especially interesting to note that Xcel apparently is able to have a license and licensed workers on the construction side with no ill effect: they apparently are able to make that work for them. There's no reason why they could not make it work on the maintenance side as well.

The requirements for obtaining a journeyman high pressure pipefitter license are set forth in Minnesota Rule 5230.0080. Although some minor revisions to this rule are proposed, the experience and examination requirements remain essentially unchanged. The applicant needs to have four years of experience in the trade of high pressure pipefitting,

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[46] Tr. 153-54.
[47] Tr. 150.
[48] *See, e.g.,* Tr. 53, 119,
[49] Tr. 54.
[50] Tr. 120.
[51] *See* Green's letter.
[52] Tr. 127.

or four years as a registered unlicensed individual or pipefitter apprentice. In addition, the applicant must pass an examination on pipefitting.

There is no requirement that the four years of experience in high pressure pipefitting span all areas of high pressure piping, so Xcel's experienced pipefitters would clearly meet the experience requirement. Approximately two-thirds of the examination is on welding, pipefitting, and power piping (steam) systems. Only approximately one-third of the exam is on ammonia refrigeration piping.[53] Xcel's highly trained employees must have lots of knowledge about welding, pipefitting, and power piping. They would need some training on ammonia piping if they do not have any knowledge about that, but that additional training is not as onerous or costly as the Xcel witnesses suggest. And the proposed effective date would give Xcel employees until August 1, 2010, to become licensed.

Mark Geisenhoff from Flint Hills acknowledged that only three of their eight pipefitters would need to become licensed.[54] It is also possible that licensing those pipefitters might save Flint Hills some money because the company might no longer need to contract out new installation work to independent contracts. When asked whether Flint Hills would save money on contract workers, Mr. Geisenhoff responded: "Flint Hills would – we may or may not."[55] Of course, the same could be said for Xcel.

Xcel has seven locations regulated under Minnesota's high pressure piping laws,[56] and Flint Hills has one location regulated under Minnesota's high pressure piping laws. These locations represent eight out of a total of 982 high pressure piping locations in Minnesota.[57] Yet no other owners of high pressure piping systems have raised any problem with the proposed definition. As described previously, other owners of high pressure piping systems have complied with the Department's interpretation of "repairs," and have obtained blanket permits for their ongoing maintenance work.[58] The blanket permit option has worked for these HPP owners, and the actual cost of compliance has not been prohibitive.

D. The proposed definition is within the Board's statutory authority.

The Board has clear statutory authority to adopt rules regulating the "licensure or registration of high pressure piping contractors, journeymen, and other persons engaged in the design, installation, and alteration of high pressure piping systems."[59] The Board's attorney described the Board's authority in detail at the rulemaking hearing.[60] To summarize, the phrase "repairs on existing installations" is included in the high pressure piping licensing statute.[61] In order to understand what work requires a license, it is

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[53] *See* Green's letter.
[54] Tr. 96-97.
[55] Tr. 95.
[56] This does not include the two nuclear locations. *See* note 19 *supra*.
[57] *See* Green's letter.
[58] *Id.*
[59] *See* Minn. Stat. § 326B.925, subd. 2(5) (2008).
[60] *See* Tr. 16-20.
[61] *See* Minn. Stat. § 326B.921, subd. 1 (2008).

necessary to understand what the phrase "repairs on existing installations" means. Therefore, the proposed definition is within the Board's statutory authority to adopt rules regulating high pressure piping licensure. The Department agrees that this definition is within the Board's rulemaking authority, rather than the Department's general rulemaking authority in the high pressure piping area.[62]

II. Other written comments do not warrant any change to the proposed rules.

A. The proposed definition of "piping system" is reasonable.

Xcel objects to the definition of "piping system" in proposed rule 5230.0005, subpart 14. Xcel argues that the proposed language is overly broad because it includes "accessories, apparatus, equipment, or appurtenances necessary for proper and safe operation according to this chapter." Xcel states: "For example, accessories and appurtenances arguably include instrumentation, an area in which licensed pipefitters should not be required."[63]

The Legislature specifically included "appurtenances." The statutory definition of "contracting high pressure pipefitter" includes "appurtenances":

> "Contracting high pressure pipefitter" means an individual, such as a steamfitter, engaged in the planning, superintending, and practical installation of high pressure piping *and appurtenances*, and otherwise lawfully qualified to construct high pressure piping installations and make replacements to existing plants, who is also qualified to conduct the business of high pressure piping installations and who is familiar with the laws, rules, and minimum standards governing them.[64]

The statutory definition of "journeyman high pressure pipefitter" also includes "appurtenances":

> "Journeyman high pressure pipefitter" means an individual, such as a steamfitter, who is not a contracting high pressure pipefitter and who is engaged in the practical installation of high pressure piping *and appurtenances* in the employ of a contracting high pressure pipefitter.[65]

It is therefore reasonable to include "appurtenances" in the definition of piping systems. The other words in the phrase to which Xcel objects (accessories, apparatus, and equipment) merely expand on the meaning of "appurtenances." Dictionary synonyms of "appurtenances" include "apparatus," "instruments," and "equipment."[66] The proposed definition is reasonable.

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[62] *See* Minn. Stat. § 326B.02, subd. 5 (2008).
[63] *See, e.g.*, exhibit 50 at 1.
[64] Minn. Stat. § 326B.91, subd. 3 (2008) (emphasis added).
[65] Minn. Stat. § 326B.91, subd. 6 (2008) (emphasis added).
[66] *See* dictionary.reference.com, including definitions based on the Random House Dictionary (2006) and The American Heritage Dictionary of the English Language (4th ed. 2006).

B. Proposed Rule 5230.5920 is needed and reasonable.

Proposed rule 5230.5920 concerns the qualification of welding procedures, welders, and welding operators. Xcel raises several objections to the proposed language.[67] First, Xcel argues that the current language concerning welding on ammonia refrigeration systems should not apply to all high pressure piping welding. The Department has modeled proposed rule 5230.5920 on the current rule concerning welding on ammonia refrigeration systems (existing rule 5230.5925) because that language is much more up-to-date than the language in the code applicable to other high pressure piping systems. The welding language in the current code applicable to other high pressure piping systems is in existing rule 5230.1070.[68]

Despite Xcel's objection, Xcel recognizes that proposed subparts 3 through 9 are generally consistent with ASME section IX. Xcel argues that these subparts are "generally redundant and unnecessary" because proposed subpart 2 incorporates ASME section IX by reference. Xcel does not object to proposed subpart 2. The Board decided to repeat some of the ASME section IX requirements in rule for ease of reference.

Xcel objects specifically to proposed subpart 6, which states: "The welding procedure specification and procedure qualification record must be objectively evaluated by and acceptable to the administrative authority." Xcel objects to evaluation of welding documents by the Department, and questions the objectivity of Department personnel. [69]

All Department high pressure piping inspectors are required to be American Welding Society certified welding inspectors. These inspectors are certified to "verify that the work inspected and records maintained, conform to the requirements of the applicable standards". [70] If Xcel is suggesting that this requirement should be included in rule, that suggestion is outside the scope of this rulemaking procedure. The Board has no authority to adopt rules on qualifications of Department inspectors.[71]

The evaluation of welding documents by the Department (or municipal authorities) is needed and reasonable. The Department has found serious problems with incomplete welding specifications, and the failure of welding to meet welding procedure specifications and procedure qualification record.[72]

Xcel also objects to the requirement in proposed subpart 8 that a welder's identification symbol be marked on the workpiece.[73] This requirement is in existing rule, both for

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[67] *See, e.g.,* exhibit 50 at 2-3.
[68] *See, e.g.,* Minn. R. 5230.1070, subparts 2(B), 13, 16 (2007).
[69] *See* exhibit 50 at 2-3.
[70] *See* Green's letter.
[71] *See* Minn. Stat. § 326B.925, subd. 2 (2008).
[72] *See In the Matter of the Revocation of the High Pressure Piping License of Mid-States Mechanical Services, Inc.*, Findings of Fact, Conclusions and Order, OAH docket no. 15-1904-16969-2, Jan. 29, 2008 (available at http://www.oah.state.mn.us/aljBase/190416969.DEF.ORD.htm).
[73] *See* exhibit 50 at 3.

ammonia refrigeration piping and for other high pressure piping.[74] Xcel states: "For certain materials and operating conditions, marking may introduce defects deleterious to the piping material."[75] This is not correct. Marking a weld identification can be as easy and nonintrusive as marking with a grease pencil. As a welder, the undersigned Chair has personally marked such weld identifications with a grease pencil many times. That type of marking cannot introduce defects.

Marking welder identification symbols is needed and reasonable to assist the inspector in determining which welder prepared which welds. This can expedite the process of preventing future welding errors by the same welder.

The proposed rule is needed and reasonable.

III. One typographical error needs to be corrected.

The proposed provision on effective date contains a typographical error. On line 23.10, the reference to subpart 6 of part 5230.0005 is intended to refer to the definition of "Repairs on an existing installation," which is subpart 16 of proposed part 5230.0005. Therefore, the Board has determined to modify line 23.10 by changing "subpart 6" to "subpart 16."

Very truly yours,

Larry Stevens, Jr.

Larry Stevens, Jr., Chair
Board of High Pressure Piping Systems

Wendy Willson Legge
Attorney to the Board of High Pressure Piping Systems

[74] *See* Minn. R. 5230.1070, subp. 13, 5230.5925, subp. 14 (2007).
[75] Exhibit 50 at 3.